



#5

SEQUENCE LISTING

<110> Gerlach, Valerie L  
MacDougall, John R  
Smithson, Glenna

<120> Novel Polypeptides and Nucleic Acids Encoding Same

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<140> 09/898,586

<141> 2001-07-03

<150> 60/177,839

<151> 2000-01-25

<150> 60/176,134

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<151> 2001-01-16

<160> 104

<170> PatentIn Ver. 2.1

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<211> 337

<212> PRT

<213> Homo sapiens

<400> 2

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Phe Ser Ser Trp Gln Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu
20             25            30

Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
35             40            45

Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
50             55            60

Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
65             70            75            80

Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
85             90            95

Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
100            105            110
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Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His  
 115 120 125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu  
 130 135 140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr  
 145 150 155 160

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His  
 165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr  
 180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val  
 195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala  
 210 215 220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr  
 225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr  
 245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser  
 260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe  
 275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly Thr Leu Lys Lys Thr  
 290 295 300

Leu Ser Arg Pro Gly Ala Val Ala His Ala Cys Asn Pro Ser Thr Leu  
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Gly Gly Arg Gly Gly Trp Ile Met Arg Ser Gly Asp Arg Asp His Pro  
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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

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 20 25 30  
 Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
 35 40 45  
 Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
 50 55 60  
 Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
 65 70 75 80  
 Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg  
 85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu  
 100 105 110  
 Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro  
 115 120 125  
 Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala  
 130 135 140  
 Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val  
 145 150 155 160  
 Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe  
 165 170 175  
 Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His  
 180 185 190  
 Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly  
 195 200 205  
 Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile  
 210 215 220  
 Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys  
 225 230 235 240  
 Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile  
 245 250 255  
 Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr  
 260 265 270  
 Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile  
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<212> DNA

<213> Homo sapiens

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ttgctgtgat gggatatgat cgctatgtag caatttgtca ccctctgagg tacacactca 420
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<212> PRT

<213> Homo sapiens

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Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
 20             25            30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
 35             40            45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
 50             55            60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
 65             70            75            80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
 85             90            95

Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
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100	105	110
Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys		
115	120	125
His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu		
130	135	140
Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala		
145	150	155
160		
Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn		
165	170	175
His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp		
180	185	190
Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile		
195	200	205
Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn		
210	215	220
Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr		
225	230	235
240		
Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser		
245	250	255
Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln		
260	265	270
Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu		
275	280	285
Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg Val		
290	295	300
Leu Gly Met Pro Val Ala Thr Lys Met Ser		
305	310	

<210> 7

<211> 1090

<212> DNA

<213> Homo sapiens

<400> 7

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1090

<210> 8

<211> 314

<212> PRT

<213> Homo sapiens

<400> 8

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Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
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Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
      20             25             30

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Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
      35             40             45

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Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
      50             55             60

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Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
      65             70             75             80

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Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Leu Met
      85             90             95

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Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
      100            105            110

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Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys  
 115 120 125

His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu  
 130 135 140

Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala  
 145 150 155 160

Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn  
 165 170 175

His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp  
 180 185 190

Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile  
 195 200 205

Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn  
 210 215 220

Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr  
 225 230 235 240

Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Asp Cys Ala Ser  
 245 250 255

Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln  
 260 265 270

Leu Val Ala Val Thr Tyr Ala Val Val Thr Pro Leu Leu Asn Pro Leu  
 275 280 285

Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg Val  
 290 295 300

Leu Gly Met Pro Val Ala Thr Lys Met Ser  
 305 310

<210> 9

<211> 822

<212> DNA

<213> Homo sapiens

<400> 9

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<210> 10

<211> 265

<212> PRT

<213> Homo sapiens

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Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
          20                   25                   30

```

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Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
      35                   40                   45

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```

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
      50                   55                   60

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```

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
      65                   70                   75                   80

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Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
          85                   90                   95

```

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Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
      100                   105                   110

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Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
      115                   120                   125

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Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
      130                   135                   140

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Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser

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145	150	155	160
Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly			
	165	170	175
Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys			
	180	185	190
Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser			
	195	200	205
Pro Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val			
	210	215	220
Thr Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Gly Lys Arg Asp Ile			
225	230	235	240
Gln Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp			
	245	250	255
Met Phe His Pro Phe Ser Cys Val Gly			
	260	265	

<210> 11

<211> 930

<212> DNA

<213> Homo sapiens

<400> 11

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<210> 12

<211> 294

<212> PRT

<213> Homo sapiens

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20 25 30

Leu Cys Ser Ala Asp Ile Gly Phe Thr Leu Ala Met Val Pro Lys Met  
35 40 45

Ile Val Asn Met Gln Ser His Ser Arg Val Ile Ser Tyr Glu Gly Cys  
50 55 60

Leu Thr Arg Met Ser Phe Phe Val Leu Phe Ala Cys Met Glu Asp Met  
65 70 75 80

Leu Leu Thr Val Met Ala Tyr Asp Cys Phe Val Ala Ile Cys Arg Pro  
85 90 95

Leu His Tyr Pro Val Ile Val Asn Pro His Leu Cys Val Phe Phe Val  
100 105 110

Leu Val Ser Phe Phe Leu Ser Pro Leu Asp Ser Gln Leu His Ser Trp  
115 120 125

Ile Val Leu Leu Phe Thr Ile Ile Lys Asn Val Glu Ile Thr Asn Phe  
130 135 140

Val Cys Glu Pro Ser Gln Leu Leu Asn Leu Ala Cys Ser Asp Ser Val  
145 150 155 160

Ile Asn Asn Ile Phe Ile Tyr Phe Asp Ser Thr Met Phe Gly Phe Leu  
165 170 175

Pro Ile Ser Gly Ile Leu Leu Ser Tyr Tyr Lys Ile Val Pro Ser Ile  
180 185 190

Leu Arg Met Ser Ser Ser Asp Gly Lys Tyr Lys Gly Phe Ser Thr Cys  
195 200 205

Gly Ser Tyr Leu Ala Val Val Cys Ser Phe Asp Gly Thr Gly Ile Gly  
210 215 220

Met Tyr Leu Thr Ser Ala Val Ser Pro Pro Pro Arg Asn Gly Val Ala  
 225 230 235 240

Ser Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Leu Phe Ile Leu  
 245 250 255

Ser Leu Gly Lys Arg Asp Ile Gln Ser Val Leu Arg Arg Leu Cys Ser  
 260 265 270

Arg Thr Val Glu Ser His Asp Met Phe His Pro Phe Ser Cys Val Gly  
 275 280 285

Glu Lys Gly Gln Pro His  
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 tcccaagatg attgtggaca tgcagtggta tagcagagtc atctctcatg cgggctgect 300  
 gacacagatg tctttcttgg tcctttttgc atgtatagaa ggcagtgtcc tgactgtaat 360  
 ggcctatgac tgctttgtag gcatctatcg cctctgtcac taccagtc tctgtaatcc 420  
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 ctgtgacccc tctcaacttc tcaaacttgc ctcttatgac agcgtcatca atagcatatt 600  
 catatatatt gatagtacaa tgtttggttt tcttcctatt tcagggatcc tttcatctta 660  
 ctataaaatt gtcccctcca ttctaaggat gtcatcgtca gatgggaagt ataaaacttt 720  
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<210> 14  
 <211> 309  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (280)

<223> Wherein Xaa is any amino acid.

<400> 14

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Leu	Ser	Glu	Asp	Pro	Glu	Leu	Gln	Pro	Val	Leu	Ala	Leu	Leu	Ser	Leu
		20					25					30			
Ser	Leu	Ser	Met	Tyr	Leu	Val	Thr	Val	Leu	Arg	Asn	Leu	Leu	Ser	Ile
	35					40				45					
Pro	Ala	Val	Ser	Ser	Asp	Ser	His	Leu	His	Thr	Pro	Thr	Tyr	Phe	Phe
	50					55				60					
Leu	Ser	Ile	Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe	Thr	Ser	Ala	Thr	Val
65				70					75					80	
Pro	Lys	Met	Ile	Val	Asp	Met	Gln	Trp	Tyr	Ser	Arg	Val	Ile	Ser	His
			85				90						95		
Ala	Gly	Cys	Leu	Thr	Gln	Met	Ser	Phe	Leu	Val	Leu	Phe	Ala	Cys	Ile
		100					105					110			
Glu	Gly	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Cys	Phe	Val	Gly	Ile
	115					120					125				
Tyr	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn	Pro	His	Leu	Cys	Val
	130				135					140					
Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu	Leu	Asp	Ser	Gln	Leu
145				150					155					160	
His	Ser	Trp	Ile	Val	Leu	Gln	Phe	Thr	Ile	Ile	Lys	Asn	Val	Glu	Ile
		165					170						175		
Ser	Asn	Phe	Val	Cys	Asp	Pro	Ser	Gln	Leu	Leu	Lys	Leu	Ala	Ser	Tyr
		180					185					190			
Asp	Ser	Val	Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Phe	Asp	Ser	Thr	Met	Phe
	195					200				205					
Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Ser	Ser	Tyr	Tyr	Lys	Ile	Val
	210					215				220					
Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly	Lys	Tyr	Lys	Thr	Phe
225				230					235					240	

Ser Thr Tyr Gly Ser His Leu Ala Phe Val Cys Ser Phe Tyr Gly Thr  
245 250 255

Gly Ile Asp Met Tyr Leu Ala Ser Ala Met Ser Pro Thr Pro Arg Asn  
260 265 270

Gly Val Val Val Ser Val Met Xaa Ala Val Val Thr Pro Met Leu Asn  
275 280 285

Leu Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln Ser Ala Leu Arg  
290 295 300

Arg Leu Arg Ser Arg  
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<210> 15

<211> 994

<212> DNA

<213> Homo sapiens

<400> 15

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ctgtcatgtt tgtcataggg cttctgggca acaccgttct tctcttcttg atccgtgtgg 180  
actcccggct ccatacacc atgtacttcc tgcacagcca gctctccctg ttgacattg 240  
gctgtcccat ggtcaccatc cccaagatgg catcagactt tctgcgggga gaaggtgcca 300  
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gcgctctgtt ggtcctcatg tcttatgacc gttatgttgc tgtgtgccag cccctgcagt 420  
atcctgtact tatgagacgc caggatatgc tgcctgatgat gggctcctcc tgggtggttag 480  
gtgtgctcaa cgctccatc cagacctcca tcacctgca tttccctac tgtgcctccc 540  
gtattgtgga tcactcttc tgtgaggtgc cagccctact gaagctctcc tgtgcagata 600  
cctgtgcta cgagatggcg ctgtccacct caggggtgct gatcctaag ctccctcttt 660  
ccctcatcgc cacctcctac ggccacgtgt tgcaggctgt tctaagcatg cgctcagagg 720  
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<210> 16

<211> 314

<212> PRT

<213> Homo sapiens

<400> 16

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Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu	35	40	45
Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser	50	55	60
Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys	65	70	75
Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly	85	90	95
Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly	100	105	110
Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln	115	120	125
Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met	130	135	140
Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr	145	150	155
Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His	165	170	175
Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr	180	185	190
Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met	195	200	205
Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala	210	215	220
Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr	225	230	235
Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val	245	250	255
Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn			





Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu  
 35 40 45  
 Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser  
 50 55 60  
 Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys  
 65 70 75 80  
 Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly  
 85 90 95  
 Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly  
 100 105 110  
 Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln  
 115 120 125  
 Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met  
 130 135 140  
 Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr  
 145 150 155 160  
 Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His  
 165 170 175  
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr  
 180 185 190  
 Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met  
 195 200 205  
 Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala  
 210 215 220  
 Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr  
 225 230 235 240  
 Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val  
 245 250 255  
 Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn  
 260 265 270  
 Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu  
 275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val  
 290 295 300

Leu Ser Arg Ala Gly Leu Arg Gln Met Cys Met Thr Thr  
 305 310 315

<210> 19  
 <211> 1077  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
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 ttctctgctg tgtattttat gactgtagtg ggaaaccttc ttattgtggt catagtgacc 180  
 tccgaccac acctgcacac aaccatgtat tttctcttg gcaatcttcc tttcctggac 240  
 ttttgetact cttccatcac agcacctagg atgctggtg acttgctctc aggcaaccct 300  
 accatttctt ttggtggatg cctgactcaa ctcttcttct tccacttcat tggaggcatc 360  
 aagatcttcc tgctgactgt catggcgtat gaccgctaca ttgccatttc ccagccccctg 420  
 cactacacgc tcattatgaa tcagactgtc tgtgcaactcc ttatggcagc ctctgggtg 480  
 gggggcttca tccactccat agtacagatt gcattgacta tccagctgcc attctgtggg 540  
 cctgacaagc tggacaactt ttattgtgat gtgcctcagc tgatcaaatt ggccctgcaca 600  
 gatacccttg tottagagct tttaatggtg tctaacaatg gcctggtgac cctgatgtgt 660  
 tttctggtgc ttctgggac gtacacagca ctgctagtca tgctccgaag ccactcacgg 720  
 gagggccgca gcaaggccct gtctacctgt gcctctcaca ttgctgtggt gaccttaatc 780  
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 gtctctgtgc tatacaaat tgtaccccc atgctgaatc ctgccatcta taccctgaga 900  
 aacaaggaag tgatcatggc catgaagaag ctgtggagga ggaaaaagga ccctattggt 960  
 cccctggagc acagaccctt acattagcag aggcagtgac ctgagaatct gaaagatgct 1020  
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<210> 20  
 <211> 318  
 <212> PRT  
 <213> Homo sapiens

<400> 20  
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 Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser  
 20 25 30  
 Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile  
 35 40 45

Val	Thr	Ser	Asp	Pro	His	Leu	His	Thr	Thr	Met	Tyr	Phe	Leu	Leu	Gly	50	55	60	
Asn	Leu	Ser	Phe	Leu	Asp	Phe	Cys	Tyr	Ser	Ser	Ile	Thr	Ala	Pro	Arg	65	70	75	80
Met	Leu	Val	Asp	Leu	Leu	Ser	Gly	Asn	Pro	Thr	Ile	Ser	Phe	Gly	Gly	85	90	95	
Cys	Leu	Thr	Gln	Leu	Phe	Phe	Phe	His	Phe	Ile	Gly	Gly	Ile	Lys	Ile	100	105	110	
Phe	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Ile	Ala	Ile	Ser	Gln	115	120	125	
Pro	Leu	His	Tyr	Thr	Leu	Ile	Met	Asn	Gln	Thr	Val	Cys	Ala	Leu	Leu	130	135	140	
Met	Ala	Ala	Ser	Trp	Val	Gly	Gly	Phe	Ile	His	Ser	Ile	Val	Gln	Ile	145	150	155	160
Ala	Leu	Thr	Ile	Gln	Leu	Pro	Phe	Cys	Gly	Pro	Asp	Lys	Leu	Asp	Asn	165	170	175	
Phe	Tyr	Cys	Asp	Val	Pro	Gln	Leu	Ile	Lys	Leu	Ala	Cys	Thr	Asp	Thr	180	185	190	
Phe	Val	Leu	Glu	Leu	Leu	Met	Val	Ser	Asn	Asn	Gly	Leu	Val	Thr	Leu	195	200	205	
Met	Cys	Phe	Leu	Val	Leu	Leu	Gly	Ser	Tyr	Thr	Ala	Leu	Leu	Val	Met	210	215	220	
Leu	Arg	Ser	His	Ser	Arg	Glu	Gly	Arg	Ser	Lys	Ala	Leu	Ser	Thr	Cys	225	230	235	240
Ala	Ser	His	Ile	Ala	Val	Val	Thr	Leu	Ile	Phe	Val	Pro	Cys	Ile	Tyr	245	250	255	
Val	Tyr	Thr	Arg	Pro	Phe	Arg	Thr	Phe	Pro	Met	Asp	Lys	Ala	Val	Ser	260	265	270	
Val	Leu	Tyr	Thr	Ile	Val	Thr	Pro	Met	Leu	Asn	Pro	Ala	Ile	Tyr	Thr	275	280	285	
Leu	Arg	Asn	Lys	Glu	Val	Ile	Met	Ala	Met	Lys	Lys	Leu	Trp	Arg	Arg	290	295	300	

Lys Lys Asp Pro Ile Gly Pro Leu Glu His Arg Pro Leu His  
 305 310 315

<210> 21  
 <211> 1012  
 <212> DNA  
 <213> Homo sapiens

<400> 21  
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 acaatataac atccatcaca gagttcctcc tactgggatt tcccgttggc ccaaggattc 120  
 agatgctcct ctttgggctc ttctccctgt tctacgtctt caccctgctg gggaacggga 180  
 ccatactggg gctcatctca ctggactcca gactgcacgc ccccatgtac ttcttctctt 240  
 cacacctggc ggtcgtcgac atcgctacg cctgcaacac ggtgccccgg atgctggtga 300  
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 ttccacttt tgctgtcaca gaatgtctcc tctggtggt gatgtcctat gatctgtacg 420  
 tggccatctg ccacccctc cgatatttgg ccatcatgac ctggagagtc tgcatacccc 480  
 tcgcggtgac ttcttgacc actggagtc ttttatcctt gattcatctt gtgttacttc 540  
 tacctttacc cttctgtagg ccccgaaaaa tttatcactt tttttgtgaa atcttggtg 600  
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 tttctgggct ggtgggaccc ttgtccacaa ttgtagtctt atatatgtgc atcctctgtg 720  
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 tgctcaatcc ccttatctgt agtcttagga actcagaagt gaagaatact ttgaagagag 960  
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<210> 22  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

<400> 22  
 Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe  
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 Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu  
 20 25 30  
 Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
 35 40 45  
 Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
 50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
 65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg  
 85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu  
 100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro  
 115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala  
 130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val  
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe  
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His  
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly  
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile  
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys  
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile  
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr  
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile  
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu  
 290 295 300

Gly Val Glu Arg Ala Leu  
 305 310

<210> 23  
 <211> 1014  
 <212> DNA  
 <213> Homo sapiens

<400> 23  
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 cagatgctcc tctttgggct cttctccctg ttctacgtct tcaccctgct ggggaacggg 180  
 accatactgg ggctcatctc actggactcc agactgcacg cccctgtac ttcttcctct 240  
 cacacctggc ggtcgtcgac atcgctacg cctgcaacac ggtgccccgg atgctgggta 300  
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 tttccacttt tgctgtcaca gaatgtctcc tcttggtggt gatgtcctat gatctgtacg 420  
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 tcgcggtgac ttcttgacc actggagtcc ttttatcctt gattcatctt gtgttacttc 540  
 tacctttacc cttctgtagg cccagaaaaa tttatcactt tttttgtga aatcttggt 600  
 gttctcaaac ttgcctgtgc agataccac atcaatgaga acatggtctt ggccggagca 660  
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 gctatccttc agatccaatc aagggaagt cagaggaaag ccttctgcac ctgcttctcc 780  
 cacctctgtg tgattggact cttttatggc acagccatta tcatgtatgt tggaccaga 840  
 tatgggaacc ccaaggagca gaagaaatat ctctgctgt ttcacagcct ctttaatccc 900  
 atgctcaatc cccttatctg tagtcttagg aactcagaag tgaagaatac tttgaagaga 960  
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<210> 24  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

<400> 24  
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 Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu  
 20 25 30  
 Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
 35 40 45  
 Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
 50 55 60  
 Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
 65 70 75 80  
 Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg

85	90	95
Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu		
100	105	110
Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro		
115	120	125
Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala		
130	135	140
Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val		
145	150	155
	160	
Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe		
165	170	175
Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His		
180	185	190
Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly		
195	200	205
Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile		
210	215	220
Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys		
225	230	235
		240
Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile		
245	250	255
Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr		
260	265	270
Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile		
275	280	285
Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu		
290	295	300
Gly Val Glu Arg Ala Leu		
305	310	

<210> 25

<211> 908

<212> DNA



<213> Homo sapiens

<400> 25

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atgagggctg cctgacacag atgtctttct ttgtcctttt tgcattgata gaagacatgc 240
tcctgactgt gatggcctat gaccaatttg tggccatctg tcaccccctg cactaccag 300
tcatcatgaa tcttcacctc tgtgtcttct tagttttggt ttcttttttc cttagcctgt 360
tggattccca gctgcacagt tggattgtgt tacaattcac cttcttcaag aatgtggaaa 420
tctctaattt tttctgtgat ccatctcaac ttctcaacct tgctgtttct gacggcatca 480
tcaatagcat attcatatat ttagatagta ttctgttcag ttttcttccc atttcaggga 540
tccttttgtc ttactataaa attgtcccct ccattctaag aatttcacgc tcagatggga 600
agtataaagc cttctccatc tgtggctctc acctggcagt tgtttgctta ttttatggaa 660
caggcattgg cgtgtacctt acttcagctg tgtcaccacc cccaggaat ggtgtggtgg 720
cgtcagtgat gtatgctgtg gtcaccccca tgctgaacct tttcatctac agcctgagaa 780
acagggatat acaaagtgtc ctgaggaggc tgtgcagcag aacagtcgaa tctcatgata 840
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taaatacct 908
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<210> 26

<211> 270

<212> PRT

<213> Homo sapiens

<400> 26

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Met Tyr Phe Phe Leu Ser Asn Leu Cys Trp Ala Asp Ile Gly Phe Thr
  1             5             10            15

Leu Ala Thr Val Pro Lys Met Ile Val Asp Met Gly Ser His Ser Arg
      20             25            30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
      35             40            45

Phe Ala Cys Ile Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp Gln
      50             55            60

Phe Val Ala Ile Cys His Pro Leu His Tyr Pro Val Ile Met Asn Pro
      65             70            75            80

His Leu Cys Val Phe Leu Val Leu Val Ser Phe Phe Leu Ser Leu Leu
      85             90            95

Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Phe Phe Lys
      100            105            110
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Asn Val Glu Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu Asn  
 115 120 125  
 Leu Ala Cys Ser Asp Gly Ile Ile Asn Ser Ile Phe Ile Tyr Leu Asp  
 130 135 140  
 Ser Ile Leu Phe Ser Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser Tyr  
 145 150 155 160  
 Tyr Lys Ile Val Pro Ser Ile Leu Arg Ile Ser Ser Ser Asp Gly Lys  
 165 170 175  
 Tyr Lys Ala Phe Ser Ile Cys Gly Ser His Leu Ala Val Val Cys Leu  
 180 185 190  
 Phe Tyr Gly Thr Gly Ile Gly Val Tyr Leu Thr Ser Ala Val Ser Pro  
 195 200 205  
 Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val Thr  
 210 215 220  
 Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln  
 225 230 235 240  
 Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp Met  
 245 250 255  
 Phe His Pro Phe Ser Cys Val Gly Glu Lys Gly Gln Pro His  
 260 265 270

<210> 27  
 <211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 27  
 Met Ser Gly Thr Asn Gln Ser Ser Val Ser Glu Phe Leu Leu Leu Gly  
 1 5 10 15  
 Leu Ser Arg Gln Pro Gln Gln Gln His Leu Leu Phe Val Phe Phe Leu  
 20 25 30  
 Ser Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ser  
 35 40 45  
 Val Ser Ile Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ser  
 50 55 60

Asn	Leu	Ser	Phe	Val	Asp	Ile	Cys	Phe	Ser	Phe	Thr	Thr	Val	Pro	Lys	65	70	75	80
Met	Leu	Ala	Asn	His	Ile	Leu	Glu	Thr	Gln	Thr	Ile	Ser	Phe	Cys	Gly	85	90	95	
Cys	Leu	Thr	Gln	Met	Tyr	Phe	Val	Phe	Met	Phe	Val	Asp	Met	Asp	Asn	100	105	110	
Phe	Leu	Leu	Ala	Val	Met	Ala	Tyr	Asp	His	Phe	Val	Ala	Val	Cys	His	115	120	125	
Pro	Leu	His	Tyr	Thr	Ala	Lys	Met	Thr	His	Gln	Leu	Cys	Ala	Leu	Leu	130	135	140	
Val	Ala	Gly	Leu	Trp	Val	Val	Ala	Asn	Leu	Asn	Val	Leu	Leu	His	Thr	145	150	155	160
Leu	Leu	Met	Ala	Pro	Leu	Ser	Phe	Cys	Ala	Asp	Asn	Ala	Ile	Thr	His	165	170	175	
Phe	Phe	Cys	Asp	Val	Thr	Pro	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr	180	185	190	
His	Leu	Asn	Glu	Val	Ile	Ile	Leu	Ser	Glu	Gly	Ala	Leu	Val	Met	Ile	195	200	205	
Thr	Pro	Phe	Leu	Cys	Ile	Leu	Ala	Ser	Tyr	Met	His	Ile	Thr	Cys	Thr	210	215	220	
Val	Leu	Lys	Val	Pro	Ser	Thr	Lys	Gly	Arg	Trp	Lys	Ala	Phe	Ser	Thr	225	230	235	240
Cys	Gly	Ser	His	Leu	Ala	Val	Val	Leu	Leu	Phe	Tyr	Ser	Thr	Ile	Ile	245	250	255	
Ala	Val	Tyr	Phe	Asn	Pro	Leu	Ser	Ser	His	Ser	Ala	Glu	Lys	Asp	Thr	260	265	270	
Met	Ala	Thr	Val	Leu	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe	275	280	285	
Ile	Tyr	Ser	Leu	Arg	Asn	Arg	Tyr	Leu	Lys	Gly	Ala	Leu	Lys	Lys	Val	290	295	300	
Val	Gly	Arg														305			

<210> 28  
 <211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 28  
 Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly  
     1                    5                    10                    15  
 Phe Ser Ser Trp Gln Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu  
                     20                    25                    30  
 Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala  
             35                    40                    45  
 Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala  
             50                    55                    60  
 Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys  
     65                    70                    75                    80  
 Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly  
                     85                    90                    95  
 Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn  
                     100                    105                    110  
 Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His  
             115                    120                    125  
 Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu  
     130                    135                    140  
 Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr  
     145                    150                    155                    160  
 Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His  
                     165                    170                    175  
 Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr  
             180                    185                    190  
 Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val  
             195                    200                    205  
 Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala

210		215		220
Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr				
225		230		240
Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr				
	245		250	255
Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser				
	260		265	270
Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe				
	275		280	285
Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly Thr Leu Lys Lys Thr				
	290		295	300
Leu Ser Arg				
305				
<210> 29				
<211> 299				
<212> PRT				
<213> Homo sapiens				
<400> 29				
Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly				
1		5		10
				15
Phe Ser Ser Trp Gln Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu				
	20		25	30
Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala				
	35		40	45
Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala				
	50		55	60
Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys				
	65		70	75
				80
Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly				
		85		90
				95
Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn				
	100		105	110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His  
115 120 125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu  
130 135 140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr  
145 150 155 160

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His  
165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr  
180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val  
195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala  
210 215 220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr  
225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr  
245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser  
260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe  
275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly  
290 295

<210> 30  
<211> 299  
<212> PRT  
<213> Homo sapiens

<400> 30  
Met Ser Gly Thr Asn Gln Ser Ser Val Ser Glu Phe Leu Leu Leu Gly  
1 5 10 15

Leu Ser Arg Gln Pro Gln Gln Gln His Leu Leu Phe Val Phe Phe Leu  
20 25 30

Ser Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ser  
 35 40 45  
 Val Ser Ile Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ser  
 50 55 60  
 Asn Leu Ser Phe Val Asp Ile Cys Phe Ser Phe Thr Thr Val Pro Lys  
 65 70 75 80  
 Met Leu Ala Asn His Ile Leu Glu Thr Gln Thr Ile Ser Phe Cys Gly  
 85 90 95  
 Cys Leu Thr Gln Met Tyr Phe Val Phe Met Phe Val Asp Met Asp Asn  
 100 105 110  
 Phe Leu Leu Ala Val Met Ala Tyr Asp His Phe Val Ala Val Cys His  
 115 120 125  
 Pro Leu His Tyr Thr Ala Lys Met Thr His Gln Leu Cys Ala Leu Leu  
 130 135 140  
 Val Ala Gly Leu Trp Val Val Ala Asn Leu Asn Val Leu Leu His Thr  
 145 150 155 160  
 Leu Leu Met Ala Pro Leu Ser Phe Cys Ala Asp Asn Ala Ile Thr His  
 165 170 175  
 Phe Phe Cys Asp Val Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Thr  
 180 185 190  
 His Leu Asn Glu Val Ile Ile Leu Ser Glu Gly Ala Leu Val Met Ile  
 195 200 205  
 Thr Pro Phe Leu Cys Ile Leu Ala Ser Tyr Met His Ile Thr Cys Thr  
 210 215 220  
 Val Leu Lys Val Pro Ser Thr Lys Gly Arg Trp Lys Ala Phe Ser Thr  
 225 230 235 240  
 Cys Gly Ser His Leu Ala Val Val Leu Leu Phe Tyr Ser Thr Ile Ile  
 245 250 255  
 Ala Val Tyr Phe Asn Pro Leu Ser Ser His Ser Ala Glu Lys Asp Thr  
 260 265 270  
 Met Ala Thr Val Leu Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe  
 275 280 285

Ile Tyr Ser Leu Arg Asn Arg Tyr Leu Lys Gly  
 290 295

<210> 31  
 <211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 31  
 Ala Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu  
 1 5 10 15  
 Ala Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro  
 20 25 30  
 Lys Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro  
 35 40 45  
 Gly Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp  
 50 55 60  
 Asn Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys  
 65 70 75 80  
 His Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser  
 85 90 95  
 Leu Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His  
 100 105 110  
 Thr Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His  
 115 120 125  
 His Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp  
 130 135 140  
 Thr Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe  
 145 150 155 160  
 Val Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser  
 165 170 175  
 Ala Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys  
 180 185



<210> 32  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens

<400> 32  
 Ala Val Ser Arg Glu Lys Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile  
 1 5 10 15  
 Val Ser Leu Ala Val Ala Asp Leu Leu Val Ala Thr Leu Val Met Pro  
 20 25 30  
 Trp Val Val Tyr Leu Glu Val Val Gly Glu Trp Lys Phe Ser Arg Ile  
 35 40 45  
 His Cys Asp Ile Phe Val Thr Leu Asp Val Met Met Cys Thr Ala Ser  
 50 55 60  
 Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala  
 65 70 75 80  
 Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr  
 85 90 95  
 Val Met Ile Ala Ile Val Trp Val Leu Ser Phe Thr Ile Ser Cys Pro  
 100 105 110  
 Met Leu Phe Gly Leu Asn Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala  
 115 120 125  
 Asn Pro Ala Phe Val Val Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro  
 130 135 140  
 Phe Ile Val Thr Leu Leu Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg  
 145 150 155 160  
 Arg Arg Arg Lys Arg Val Asn Thr Lys Arg  
 165 170

<210> 33  
 <211> 92  
 <212> DNA  
 <213> Homo sapiens

<400> 33  
 gggcgcggtg ggtcacgcct gtaatcccag cactttggga ggccgaggcg ggtggatcat 60  
 gaggtcagga gatcgagacc atcctggcta ac 92

<210> 34  
 <211> 1040  
 <212> DNA  
 <213> Homo sapiens

<400> 34  
 ccgaacaagt taaaatgaat ctgtttttta acacttctcc taaaccatga gcattaactt 60  
 gatttcctct gtcatagggg tatgggagac aatataacat ccatcagaga gttcctccta 120  
 ctgggatttc ccgttgggccc aaggattcag atgctcctct ttgggctctt ctccctgttc 180  
 tacgtcttca ccctgctggg gaacgggacc atactggggc tcactctact ggactccaga 240  
 ctgcacgccc ccatgtactt cttcctctca cacctggcgg tcgtcgacat cgcctacgcc 300  
 tgcaacacgg tgccccggat gctgggtgaac ctctgcac cagccaagcc catctccttt 360  
 gcgggcccga tgatgcagac ctttctgttt tccacttttg ctgtcacaga atgtctcctc 420  
 ctggtggtga tgtcctatga tctgtacgtg gccatctgcc acccctccg atatttggtc 480  
 atcatgacct ggagagtctg catcaccctc gcggtgactt cctggaccac tggagtcctt 540  
 ttatccttga ttcactttgt gttacttcta cttttacct tctgtaggcc ccagaaaatt 600  
 tatcactttt tttgtgaaat cttggctgtt ctcaaacttg cctgtgcaga taccacatc 660  
 aatgagaaca tgggtcttggc cggagcaatt tctgggctgg tgggaccctt gtccacaatt 720  
 gtagtttcat atatgtgcat cctctgtgct atccttcaga tccaatcaag ggaagttcag 780  
 aggaaagcct tccgcacctg cttctcccac ctctgtgtga ttggactcgt ttatggcaca 840  
 gccattatca tgtatgttgg acccagatat gggaacccca aggagcagaa gaaatatctc 900  
 ctgctgtttc acagcctctt taatcccatg ctcaatcccc ttatctgtag tcttaggaac 960  
 tcagaagtga agaatacttt gaagagagtg ctgggagtag aaagggtctt atgaaaagga 1020  
 ttatggcatt gtgactgaca 1040

<210> 35  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (152)..(165)  
 <223> Wherein Xaa is any amino acid.

<400> 35  
 Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala  
 1 5 10 15  
 Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val  
 20 25 30  
 Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met  
 35 40 45

Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu  
 50 55 60  
 Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg  
 65 70 75 80  
 Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr  
 85 90 95  
 Ser Trp Thr Thr Gly Val Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 100 105 110  
 Xaa Xaa Xaa Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys  
 115 120 125  
 Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn  
 130 135 140  
 Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu  
 145 150 155 160  
 Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln  
 165 170 175  
 Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys Phe Ser  
 180 185 190  
 His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile Met Tyr  
 195 200 205  
 Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu  
 210 215 220  
 Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Cys Ser  
 225 230 235 240  
 Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu Gly Val  
 245 250 255  
 Glu Arg Ala Leu  
 260

<210> 36  
 <211> 260  
 <212> PRT  
 <213> Homo sapiens

<400> 36

Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala  
1 5 10 15

Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val  
20 25 30

Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met  
35 40 45

Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu  
50 55 60

Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg  
65 70 75 80

Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr  
85 90 95

Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu  
100 105 110

Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys  
115 120 125

Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn  
130 135 140

Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu  
145 150 155 160

Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln  
165 170 175

Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys Phe Ser  
180 185 190

His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile Met Tyr  
195 200 205

Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu  
210 215 220

Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Cys Ser  
225 230 235 240

Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu Gly Val  
245 250 255

Glu Arg Ala Leu  
260

<210> 37

<211> 92

<212> DNA

<213> Homo sapiens

<400> 37

ggatgcggtg gctcacgcct gtaatcccag cactttggga ggccgaggtg ggcggatcat 60  
gaggtcagtt gttcgagacc aacctggtca ac 92

<210> 38

<211> 310

<212> PRT

<213> Homo sapiens

<400> 38

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe  
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu  
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg  
85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu  
100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro  
115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala  
130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val  
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe  
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His  
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly  
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile  
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys  
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile  
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr  
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile  
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu  
 290 295 300

Gly Val Glu Arg Ala Leu  
 305 310

<210> 39  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 39  
 Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val  
 1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu  
 20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr  
 35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val  
50 55 60

Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu  
65 70 75 80

Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp  
85 90 95

Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Leu Pro  
100 105 110

Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile  
115 120 125

Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn  
130 135 140

Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr  
145 150 155 160

Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln  
165 170 175

Ser Arg Glu Val Gln Arg Lys  
180

<210> 40

<211> 164

<212> PRT

<213> Homo sapiens

<400> 40

Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala  
1 5 10 15

Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu  
20 25 30

Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val  
35 40 45

Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala  
50 55 60

Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn

65	70	75	80
Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val			
85	90	95	
Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn			
100	105	110	
Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val			
115	120	125	
Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu			
130	135	140	
Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val			
145	150	155	160
Asn Thr Lys Arg			

<210> 41  
 <211> 94  
 <212> DNA  
 <213> Homo sapiens

<400> 41  
 ccgggcgcgg tggctcacgc ctgtaatccc agcactttgg gaggccgagg cgggtggatc 60  
 atgaggtcag gagatcgaga ccatacctggc taac 94

<210> 42  
 <211> 1090  
 <212> DNA  
 <213> Homo sapiens

<400> 42  
 aagaagttct tcagatgcga ggtttcaaca aaaccactgt ggttacacag ttcatacctgg 60  
 tgggtttctc cagcctgggg gagctccagc tgctgctttt tgatcatcttt cttctcctat 120  
 acttgacaat cctgggtggcc aatgtgacca tcatggccgt tattcgcttc agctggactc 180  
 tccacactcc catgtatggc tttctattca tcctttcatt ttctgagtcc tgctacactt 240  
 ttgtcatcat ccctcagctg ctggtccacc tgctctcaga caccaagacc atctccttca 300  
 tggcctgtgc caccagctg ttctttttcc ttggctttgc ttgcaccaac tgctcctca 360  
 ttgtgtgat gggatatgat cgctatgtag caatttgtca ccctctgagg tacacactca 420  
 tcataaaciaa aaggctgggg ttggagtga tttctctctc aggagccaca gggtttcttta 480  
 ttgttttggg ggccaccaac ctcatgtgtg acatgcgttt ttgtggcccc aacaggggta 540  
 accactattt ctgtgacatg gcacctgta tcaagttagc ctgcactgac acccatgtga 600  
 aagagctggc tttatttagc ctgagcatcc tggttaattat ggtgcctttt ctgttaattc 660



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tcatatccta tggcttcata gttaacacca tcctgaagat cccctcagct gagggcaaga 720
aggcctttgt cacctgtgcc tcacatctca ctgtggtctt tgtccactat ggctgtgcct 780
ctatcatcta tctgcgggcc aagtccaagt ctgcctcaga caaggatcag ttggtggcag 840
tgacctacac agtggttact cccttactta atcctcttgt ctacagtctg aggaacaaag 900
aggtaaaaac tgcattgaaa agagttcttg gaatgcctgt ggcaaccaag atgagctaac 960
aaaaaataat aataaaatta actaggatag tcacagaaga aatcaaaggc ataaaatttt 1020
ctgaccttta atgcatgtct cagacagtgt ttccaaggat taagactact cttgcctttt 1080
tattttctcc                                     1090

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<210> 43
<211> 303
<212> PRT
<213> Homo sapiens

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<400> 43
Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
  1              5              10              15

Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
          20              25              30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
      35              40              45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
      50              55              60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
      65              70              75              80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
          85              90              95

Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
      100              105              110

Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
      115              120              125

His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu
      130              135              140

Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala
      145              150              155              160

Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn
          165              170              175

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His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp  
180 185 190

Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile  
195 200 205

Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn  
210 215 220

Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr  
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser  
245 250 255

Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln  
260 265 270

Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu  
275 280 285

Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg  
290 295 300

<210> 44

<211> 304

<212> PRT

<213> Homo sapiens

<400> 44

Met Leu Gly Leu Asn His Thr Ser Met Ser Glu Phe Ile Leu Val Gly  
1 5 10 15

Phe Ser Ala Phe Pro His Leu Gln Leu Met Leu Phe Leu Leu Phe Leu  
20 25 30

Leu Met Tyr Leu Phe Thr Leu Leu Gly Asn Leu Leu Ile Met Ala Thr  
35 40 45

Val Trp Ser Glu Arg Ser Leu His Thr Pro Met Tyr Leu Phe Leu Cys  
50 55 60

Val Leu Ser Val Ser Glu Ile Leu Tyr Thr Val Ala Ile Ile Pro Arg  
65 70 75 80

Met Leu Ala Asp Leu Leu Ser Thr Gln Arg Ser Ile Ala Phe Leu Ala

	85		90		95										
Cys	Ala	Ser	Gln	Met	Phe	Phe	Ser	Phe	Ser	Phe	Gly	Phe	Thr	His	Ser
				100					105				110		
Phe	Leu	Leu	Thr	Val	Met	Gly	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His
			115					120					125		
Pro	Leu	Arg	Tyr	Asn	Val	Leu	Met	Ser	Pro	Arg	Gly	Cys	Ala	Cys	Leu
			130					135				140			
Val	Gly	Cys	Ser	Trp	Ala	Gly	Gly	Ser	Val	Met	Gly	Met	Val	Val	Thr
145					150					155					160
Ser	Ala	Ile	Phe	Gln	Leu	Thr	Phe	Cys	Gly	Ser	His	Glu	Ile	Gln	His
				165					170					175	
Phe	Leu	Cys	His	Val	Pro	Pro	Leu	Leu	Lys	Leu	Ala	Cys	Gly	Asn	Asn
			180					185					190		
Val	Pro	Ala	Val	Ala	Leu	Gly	Val	Gly	Leu	Val	Cys	Ile	Met	Ala	Leu
			195					200				205			
Leu	Gly	Gly	Phe	Leu	Leu	Ile	Leu	Leu	Ser	Tyr	Ala	Phe	Ile	Val	Ala
			210				215				220				
Asp	Ile	Leu	Lys	Ile	Pro	Ser	Ala	Glu	Gly	Arg	Asn	Lys	Ala	Phe	Ser
225					230					235					240
Thr	Cys	Ala	Ser	His	Leu	Ile	Val	Val	Ile	Val	His	Tyr	Gly	Phe	Ala
				245					250					255	
Ser	Val	Ile	Tyr	Leu	Lys	Pro	Lys	Gly	Pro	His	Ser	Gln	Glu	Gln	Asp
			260					265					270		
Thr	Leu	Met	Ala	Thr	Thr	Tyr	Ala	Val	Leu	Thr	Pro	Phe	Leu	Ser	Pro
			275					280				285			
Ile	Ile	Phe	Ser	Leu	Arg	Asn	Lys	Glu	Leu	Lys	Val	Ala	Met	Lys	Arg
			290				295				300				

<210> 45  
 <211> 187  
 <212> PRT

<213> Homo sapiens

<400> 45

Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr Leu His Thr  
1 5 10 15

Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr  
20 25 30

Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu Ser Asp Thr  
35 40 45

Lys Thr Ile Ser Phe Met Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu  
50 55 60

Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met Gly Tyr Asp  
65 70 75 80

Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu Ile Ile Asn  
85 90 95

Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe  
100 105 110

Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met Arg Phe Cys  
115 120 125

Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala Pro Val Ile  
130 135 140

Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala Leu Phe Ser  
145 150 155 160

Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile Leu Ile Ser  
165 170 175

Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile  
180 185

<210> 46

<211> 168

<212> PRT

<213> Homo sapiens

<400> 46

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr  
1 5 10 15

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val  
 20 25 30  
 Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu  
 35 40 45  
 Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val  
 50 55 60  
 Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp  
 65 70 75 80  
 Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser  
 85 90 95  
 Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser  
 100 105 110  
 Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln  
 115 120 125  
 Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile  
 130 135 140  
 Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys  
 145 150 155 160  
 Ile Tyr Ile Val Leu Arg Arg Arg  
 165

<210> 47  
 <211> 96  
 <212> DNA  
 <213> Homo sapiens

<400> 47  
 ctgggctcgg tggctcacac gtgtaatccc agcactttgg gaggccgagg cgggcggatc 60  
 acatgaggtc aggagttcga gaccagcctg gtcaac 96

<210> 48  
 <211> 94  
 <212> DNA  
 <213> Homo sapiens

<400> 48

gtagccagg atggtctcga tctcctgacc tcatgatcca cccgcctcgg cctcccaaag 60  
 tgctgggatt acaggcgtga gccaccgcgc ccgg 94

<210> 49  
 <211> 299  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (190)..(202)  
 <223> Wherein Xaa is any amino acid.

<400> 49  
 Thr Leu Ile Thr Asp Phe Val Phe Gln Gly Phe Ser Ser Phe His Glu  
 1 5 10 15  
 Gln Gln Ile Thr Leu Phe Gly Val Phe Leu Ala Leu Tyr Ile Leu Thr  
 20 25 30  
 Leu Ala Gly Asn Ile Ile Ile Val Thr Ile Ile Arg Ile Asp Leu His  
 35 40 45  
 Leu His Thr Pro Met Tyr Phe Phe Leu Ser Met Leu Ser Thr Ser Glu  
 50 55 60  
 Thr Val Tyr Thr Leu Val Ile Leu Pro Arg Met Leu Ser Ser Leu Val  
 65 70 75 80  
 Gly Met Ser Gln Pro Met Ser Leu Ala Gly Cys Ala Thr Gln Met Phe  
 85 90 95  
 Phe Phe Val Thr Phe Gly Ile Thr Asn Cys Phe Leu Leu Thr Ala Met  
 100 105 110  
 Gly Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro Leu Arg Tyr Met Val  
 115 120 125  
 Ile Met Asn Lys Arg Leu Arg Ile Gln Leu Val Leu Gly Ala Cys Ser  
 130 135 140  
 Ile Gly Leu Ile Val Ala Ile Thr Gln Val Thr Ser Val Phe Arg Leu  
 145 150 155 160  
 Pro Phe Cys Ala Arg Lys Val Pro His Phe Phe Cys Asp Ile Arg Pro  
 165 170 175

Val Met Lys Leu Ser Cys Ile Asp Thr Thr Val Asn Glu Xaa Xaa Xaa  
 180 185 190  
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Met Gly Leu Val Phe  
 195 200 205  
 Ile Ser Tyr Val Leu Ile Ile Ser Thr Ile Leu Lys Ile Ala Ser Val  
 210 215 220  
 Glu Gly Arg Lys Lys Ala Phe Ala Thr Cys Ala Ser His Leu Thr Val  
 225 230 235 240  
 Val Ile Val His Tyr Ser Cys Ala Ser Ile Ala Tyr Leu Lys Pro Lys  
 245 250 255  
 Ser Glu Asn Thr Arg Glu His Asp Gln Leu Ile Ser Val Thr Tyr Thr  
 260 265 270  
 Val Ile Thr Pro Leu Leu Asn Pro Val Val Tyr Thr Leu Arg Asn Lys  
 275 280 285  
 Glu Val Lys Asp Ala Leu Cys Arg Ala Val Gly  
 290 295

<210> 50

<211> 299

<212> PRT

<213> Homo sapiens

<400> 50

Thr Val Val Thr Gln Phe Ile Leu Val Gly Phe Ser Ser Leu Gly Glu  
 1 5 10 15  
 Leu Gln Leu Leu Leu Phe Val Ile Phe Leu Leu Leu Tyr Leu Thr Ile  
 20 25 30  
 Leu Val Ala Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr  
 35 40 45  
 Leu His Thr Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu  
 50 55 60  
 Ser Cys Tyr Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu  
 65 70 75 80  
 Ser Asp Thr Lys Thr Ile Ser Leu Met Ala Cys Ala Thr Gln Leu Phe  
 85 90 95

Phe Phe Leu Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met  
100 105 110

Gly Tyr Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu  
115 120 125

Ile Ile Asn Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala  
130 135 140

Thr Gly Phe Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met  
145 150 155 160

Arg Phe Cys Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala  
165 170 175

Pro Val Ile Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala  
180 185 190

Leu Phe Ser Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile  
195 200 205

Leu Ile Ser Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile Pro Ser  
210 215 220

Ala Glu Gly Lys Lys Ala Phe Val Thr Cys Ala Ser His Leu Thr Val  
225 230 235 240

Val Phe Val His Tyr Asp Cys Ala Ser Ile Ile Tyr Leu Arg Pro Lys  
245 250 255

Ser Lys Ser Ala Ser Asp Lys Asp Gln Leu Val Ala Val Thr Tyr Ala  
260 265 270

Val Val Thr Pro Leu Leu Asn Pro Leu Val Tyr Ser Leu Arg Asn Lys  
275 280 285

Glu Val Lys Thr Ala Leu Lys Arg Val Leu Gly  
290 295

<210> 51

<211> 187

<212> PRT

<213> Homo sapiens

<400> 51

Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr Leu His Thr



1	5	10	15
Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr			
20	25	30	
Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu Ser Asp Thr			
35	40	45	
Lys Thr Ile Ser Leu Met Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu			
50	55	60	
Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met Gly Tyr Asp			
65	70	75	80
Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu Ile Ile Asn			
85	90	95	
Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe			
100	105	110	
Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met Arg Phe Cys			
115	120	125	
Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala Pro Val Ile			
130	135	140	
Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala Leu Phe Ser			
145	150	155	160
Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile Leu Ile Ser			
165	170	175	
Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile			
180	185		

<210> 52

<211> 94

<212> DNA

<213> Homo sapiens

<400> 52

gttagccagg atggtctcaa tctcctgacc tcgtgatccg cctgccttgg cctcccaaag 60  
 tgctgggatt acaggcata gccactgcmc ccgg 94

<210> 53

<211> 788

<212> DNA

<213> Homo sapiens

<400> 53

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cacacccccca tgtgcttctt cctctccaaa ctgtgctcag ctgacatcgg tttcaccttg 60
gccatgggttc ccaagatgat tgtgaacatg cagtcgcata gcagagtcac ctcttatgag 120
ggctgcctga cacggatgtc tttctttgtc ctttttgcat gtatggaaga catgctcctg 180
actgtgatgg cctatgactg ctttgtagcc atctgtcgcc ctctgcacta cccagtcac 240
gtgaatcctc acctctgtgt cttcttcgtc ttgggtgcct ttttccttag cccgttggt 300
tcccagctgc acagttggat tgtgttacta ttcacatca tcaagaatgt ggaaatcact 360
aattttgtct gtgaaccctc tcaacttctc aaccttgctt gttctgacag cgtcatcaat 420
aacatattca tatatttcga tagtactatg tttggttttc ttcccatttc agggatcctt 480
ttgtcttact ataaaattgt cccctccatt ctaaggatgt catcgtcaga tgggaagtat 540
aaaggcttct ccacctgtgg ctcttacctg gcagttgttt gctcatattga tggaacaggc 600
attggcatgt acctgacttc agctgtgtca ccacccccca ggaatggtgt ggtggcgctca 660
gtgatgtatg ctgtggtcac ccccatgctg aaccttttca tctacagcct aggaagagg 720
gatatacaaa gtgtcctgcg gaggtgtgtc agcagaacag tcgaatctca tgatatgttc 780
catccttt
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<210> 54

<211> 788

<212> DNA

<213> Homo sapiens

<400> 54

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cacacccccca tgtgcttctt cctctccaac ctgtgctggg ctgacatcgg tttcaccttg 60
gccacgggttc ctaagatgat tgtggacatg cagtctcata ccagagtcac ctcttatgag 120
ggctgcctga cacggatata tttcttggtc ctttttgcat gtatagaaga catgctcctg 180
actgtgatgg cctatgactg ctttgtagcc atctgtcgcc ctctgcacta cccagtcac 240
gtgaatcctc acctctgtgt cttcttcctt ttggtatact ttttccttag cttgttggt 300
tcccagctgc acagttggat tgtgttaciaa ttcacatca tcaagaatgt ggaaatctct 360
aattttgtct gtgaccctc tcaacttctc aaacttgctt gttctgacag cgtcatcaat 420
agcatattca tgtatttcca tagtactatg tttggttttc ttcccatttc agggatcctt 480
ttgtcttact ataaaatcgt cccctccatt ctaaggatgt catcatcaga tgggaagtat 540
aaagccttct ccacctgtgg ctctcacttg gcagttgttt gctgatttta tggaacaggc 600
attggcggtgt acctgacttc agctgtgtca ccacccccca ggaatggtgt ggtagcgctca 660
gtgatgtacg ctgtggtcac ccccatgctg aaccttttca tctacagcct gagaaacagg 720
gacatacaaa gtgccctgcg gaggtgtgtc agcagaacag tcgaatctca tgatctgttc 780
catccttt
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<210> 55

<211> 265

<212> PRT

<213> Homo sapiens

<400> 55

Pro	Met	Cys	Phe	Phe	Leu	Ser	Lys	Leu	Cys	Ser	Ala	Asp	Ile	Gly	Phe	1	5	10	15
Thr	Leu	Ala	Met	Val	Pro	Lys	Met	Ile	Val	Asn	Met	Gln	Ser	His	Ser	20	25	30	
Arg	Val	Ile	Ser	Tyr	Glu	Gly	Cys	Leu	Thr	Arg	Met	Ser	Phe	Phe	Val	35	40	45	
Leu	Phe	Ala	Cys	Met	Glu	Asp	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	50	55	60	
Cys	Phe	Val	Ala	Ile	Cys	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn	65	70	75	80
Pro	His	Leu	Cys	Val	Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Pro	85	90	95	
Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	Ile	Val	Leu	Leu	Phe	Thr	Ile	Ile	100	105	110	
Lys	Asn	Val	Glu	Ile	Thr	Asn	Phe	Val	Cys	Glu	Pro	Ser	Gln	Leu	Leu	115	120	125	
Asn	Leu	Ala	Cys	Ser	Asp	Ser	Val	Ile	Asn	Asn	Ile	Phe	Ile	Tyr	Phe	130	135	140	
Asp	Ser	Thr	Met	Phe	Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser	145	150	155	160
Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly	165	170	175	
Lys	Tyr	Lys	Gly	Phe	Ser	Thr	Cys	Gly	Ser	Tyr	Leu	Ala	Val	Val	Cys	180	185	190	
Ser	Phe	Asp	Gly	Thr	Gly	Ile	Gly	Met	Tyr	Leu	Thr	Ser	Ala	Val	Ser	195	200	205	
Pro	Pro	Pro	Arg	Asn	Gly	Val	Val	Ala	Ser	Val	Met	Tyr	Ala	Val	Val	210	215	220	
Thr	Pro	Met	Leu	Asn	Leu	Phe	Ile	Tyr	Ser	Leu	Gly	Lys	Arg	Asp	Ile	225	230	235	240
Gln	Ser	Val	Leu	Arg	Arg	Leu	Cys	Ser	Arg	Thr	Val	Glu	Ser	His	Asp	245	250	255	

Met Phe His Pro Phe Ser Cys Val Gly  
 260 265

<210> 56  
 <211> 264  
 <212> PRT  
 <213> Homo sapiens

<400> 56  
 Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe  
 1 5 10 15

Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser  
 20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val  
 35 40 45

Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp  
 50 55 60

Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn  
 65 70 75 80

Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu  
 85 90 95

Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe  
 100 105 110

Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu  
 115 120 125

His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe  
 130 135 140

Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser  
 145 150 155 160

Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly  
 165 170 175

Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys  
 180 185 190

Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu  
 195 200 205

Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val  
 210 215 220

Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile  
 225 230 235 240

Gln Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His  
 245 250 255

Leu His Pro Phe Cys Tyr Met Gly  
 260

<210> 57

<211> 82

<212> PRT

<213> Homo sapiens

<400> 57

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe  
 1 5 10 15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser  
 20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val  
 35 40 45

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp  
 50 55 60

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn  
 65 70 75 80

Pro His

<210> 58

<211> 82

<212> PRT

<213> Homo sapiens

<400> 58

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val  
 1 5 10 15

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu  
20 25 30

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val  
35 40 45

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp  
50 55 60

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser  
65 70 75 80

Ser Lys

<210> 59

<211> 866

<212> DNA

<213> Homo sapiens

<400> 59

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agctctgact ccccgctcca ccccccatg tgcttcttcc tctccaaact gtgctcagct 120
gacatcggtt tcaccttggc catgggtccc aagatgattg tgaacatgca gtgcgcatagc 180
agagtcattc cttatgaggg ctgcctgaca cggatgtctt tctttgtcct ttttgcattg 240
atggaagaca tgctcctgac tgtgatggcc tatgactgct ttgtagccat ctgtcgccct 300
ctgcactacc cagtcattcg gaatcctcac ctctgtgtct tcttcgtctt ggtgtccttt 360
ttccttagcc cgttggattc ccagctgcac agttggattg tggtactatt caccatcatc 420
aagaatgtgg aaatcactaa ttttgtctgt gaacctctc aacttctcaa ccttgcttgt 480
tctgacagcg tcatcaataa catattcata tatttcgata gtactatgtt tggttttctt 540
cccatctcag ggatcctttt gtcttactat aaaattgtcc cctccattct aaggatgtca 600
tcgtcagatg ggaagtataa aggttcttcc acctgtggct cttacctggc agttgtttgc 660
tcatttgatg gaacaggcat tggcatgtac ctgacttcag ctgtgtcacc acccccagg 720
aatgggtgtg tggcgtcagt gatgtatgct gtggtcaccc ccatgctgaa ccttttcata 780
ctcagcctgg gaaagagggg tatacaaagt gtcctgcgga ggctgtgcag cagaacagtc 840
gaatctcatg atatgttcca tccttt                                     866

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<210> 60

<211> 866

<212> DNA

<213> Homo sapiens

<400> 60

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ctgtccctgt ccatgtatct ggtcacggtg ctgaggaacc tgctcatcat cctggctgtc 60
agctctgacc cccacctcca ccccccatg tgcttcttcc tctccaaact gtgctgggct 120
gacatcggtt tcaccttggc caccggttct aagatgattg tggacatgca gtctcatacc 180

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agagtcacatct cttatgaggg ctgcctgaca cggatatctt tcttggtcct ttttgcacgt 240
atagaagaca tgctcctgac tgtgatggcc tatgactgct ttgtagccat ctgtcgccct 300
ctgcactacc cagtcacgt gaatcctcac ctctgtgtct tcttcctttt ggtatacttt 360
ttccttagct tgttggattc ccagctgcac agttggattg tgttacaatt caccatcatc 420
aagaatgtgg aaatctctaa ttttgtctgt gacccctctc aacttctcaa acttgcctgt 480
tctgacagcg tcatcaatag catattcatg tatttcata gtactatgtt tggttttctt 540
cccatttcag ggatcctttt gtcttactat aaaatcgctc cctccattct aaggatttca 600
tcatcagatg ggaagtataa agccttctcc acctgtggct ctcacttggc agttgtttgc 660
tgattttatg gaacaggcat tggcgtgtac ctgacttcag ctgtgtcacc accccccagg 720
aatgggtgtg tagcgtcagt gatgtacgct gtggtcaccc ccatgctgaa ccttttcatc 780
tacagcctga gaaacagggg catacaaagt gccctgcgga ggctgctcag cagaacagtc 840
gaatctcatg atctgttcca tccttt 866

```

<210> 61

<211> 265

<212> PRT

<213> Homo sapiens

<400> 61

```

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
  1                      5                      10                      15

```

```

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
          20                      25                      30

```

```

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
          35                      40                      45

```

```

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
          50                      55                      60

```

```

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
          65                      70                      75                      80

```

```

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
          85                      90                      95

```

```

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
          100                      105                      110

```

```

Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
          115                      120                      125

```

```

Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
          130                      135                      140

```

```

Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser

```

145                      150                      155                      160  
 Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly  
                          165                      170                      175  
 Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys  
                          180                      185                      190  
 Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser  
                          195                      200                      205  
 Pro Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val  
                          210                      215                      220  
 Thr Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Gly Lys Arg Asp Ile  
 225                                   230                      235                      240  
 Gln Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp  
                                  245                      250                      255  
 Met Phe His Pro Phe Ser Cys Val Gly  
                          260                      265

<210> 62

<211> 264

<212> PRT

<213> Homo sapiens

<400> 62

Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe  
   1                      5                      10                      15  
 Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser  
                          20                      25                      30  
 Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val  
                          35                      40                      45  
 Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp  
                          50                      55                      60  
 Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn  
   65                                   70                      75                      80  
 Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu  
                          85                      90                      95



Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe  
 100 105 110  
 Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu  
 115 120 125  
 His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe  
 130 135 140  
 Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser  
 145 150 155 160  
 Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly  
 165 170 175  
 Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys  
 180 185 190  
 Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu  
 195 200 205  
 Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val  
 210 215 220  
 Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile  
 225 230 235 240  
 Gln Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His  
 245 250 255  
 Leu His Pro Phe Cys Tyr Met Gly  
 260

<210> 63  
 <211> 264  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> VARIANT  
 <222> (85)..(99)  
 <223> Wherein Xaa is any amino acid.

<400> 63  
 Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe  
 1 5 10 15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser  
 20 25 30  
 Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val  
 35 40 45  
 Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp  
 50 55 60  
 Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn  
 65 70 75 80  
 Pro His Leu Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 85 90 95  
 Xaa Xaa Xaa Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile  
 100 105 110  
 Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu  
 115 120 125  
 Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe  
 130 135 140  
 Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser  
 145 150 155 160  
 Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly  
 165 170 175  
 Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys  
 180 185 190  
 Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser  
 195 200 205  
 Pro Pro Pro Arg Asn Gly Val Ala Ser Val Met Tyr Ala Val Val Thr  
 210 215 220  
 Pro Met Leu Asn Leu Phe Ile Leu Ser Leu Gly Lys Arg Asp Ile Gln  
 225 230 235 240  
 Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp Met  
 245 250 255  
 Phe His Pro Phe Ser Cys Val Gly  
 260

<210> 64  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

<400> 64

Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe  
 1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu  
 20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
 35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
 50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
 65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg  
 85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu  
 100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro  
 115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala  
 130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val  
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe  
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His  
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly  
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile  
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys  
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile  
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr  
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile  
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu  
 290 295 300

Gly Val Glu Arg Ala Leu  
 305 310

<210> 65

<211> 190

<212> PRT

<213> Homo sapiens

<400> 65

Asn Leu Leu Ser Ile Leu Ala Val Ser Ser Asp Ser Pro Leu His Thr  
 1 5 10 15

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe  
 20 25 30

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser  
 35 40 45

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val  
 50 55 60

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp  
 65 70 75 80

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn  
 85 90 95

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro  
 100 105 110

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile

115	120	125
Lys Asn Val Glu Ile Thr	Asn Phe Val Cys Glu Pro Ser Gln Leu Leu	
130	135	140
Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe		
145	150	155 160
Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser		
	165 170	175
Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser		
180	185	190

<210> 66  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

<400> 66
Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr
1 5 10 15
Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
20 25 30
Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
35 40 45
Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
50 55 60
Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
65 70 75 80
Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
85 90 95
Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser
100 105 110
Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln
115 120 125
Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile
130 135 140

Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys  
 145 150 155 160

Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg  
 165 170

<210> 67

<211> 310

<212> PRT

<213> Homo sapiens

<400> 67

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe  
 1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu  
 20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
 35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
 50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
 65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg  
 85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu  
 100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro  
 115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala  
 130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val  
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe  
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His  
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly  
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile  
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys  
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile  
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr  
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile  
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu  
 290 295 300

Gly Val Glu Arg Ala Leu  
 305 310

<210> 68  
 <211> 930  
 <212> DNA  
 <213> Homo sapiens

<400> 68  
 cacagagcca cggaatctca caggtgtctg agaattcctc ctcttgggac tctcagagga 60  
 tccagaactg cagtcgggtcc tcgcttttgc gtccctgtcc ctgtccctga atctgggtcac 120  
 ggtgctgagg aacctgctca gcatcctggc tgtcagctct gactcccccc tccacacccc 180  
 catgtacttc ttcctctcca acctgtgctg ggctgacatc ggtctcacct cggccacggg 240  
 tcccaagggtg attctggata tgcagtcgca tagcagagtc atctctcatg tgggctgcct 300  
 gacacagatg tctttcttgg tcctttttgc atgtatagaa ggcagctcc tgactgtgat 360  
 ggcttatggc tgctttgtag ccatctgtcg ccctctgcac taccagtc tagtgaatcc 420  
 tcacctctgt gtcttcttcg ttttggtgtc ctttttctt aacctgttgg attcccagct 480  
 gcacagttgg attgtgttac aattcaccat catcaagaat gtggaaatct ctaatttttt 540  
 ctgtgacccc tctcagcttc tcaaccttgc ctgttctgac agcgtcatca atagcatatt 600  
 catatatatt gatagtacta tgtttggttt tcttccatt tcagggatcc ttttgtctta 660  
 ctataaaatt gtcccctcca ttctaaggat gtcacgtca gatgggaagt ataaagcctt 720  
 ctccacctat ggctctcacc taggagttgt ttgctggttt tatggaacag tcattggcat 780  
 gtacctggct tcagccgtgt caccaccccc caggaatggg gtgggtggcat cagtgatgta 840  
 ggctgtggtc acccccatgc tgaacctttt catctacagc ctgagaaaca gggacataca 900  
 aagtgcctg cggaggctgc gcagcagaac 930

<210> 69  
 <211> 249  
 <212> PRT  
 <213> Homo sapiens

<400> 69  
 Pro Thr Tyr Phe Phe Leu Ser Ile Leu Cys Trp Ala Asp Ile Gly Phe  
           1                  5                  10                  15  
 Thr Ser Ala Thr Val Pro Lys Met Ile Val Asp Met Gln Trp Tyr Ser  
                   20                  25                  30  
 Arg Val Ile Ser His Ala Gly Cys Leu Thr Gln Met Ser Phe Leu Val  
           35                  40                  45  
 Leu Phe Ala Cys Ile Glu Gly Met Leu Leu Thr Val Met Ala Tyr Asp  
           50                  55                  60  
 Cys Phe Val Gly Ile Tyr Arg Pro Leu His Tyr Pro Val Ile Val Asn  
           65                  70                  75                  80  
 Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Leu  
                   85                  90                  95  
 Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Ile Ile  
           100                  105                  110  
 Lys Asn Val Glu Ile Ser Asn Phe Val Cys Asp Pro Ser Gln Leu Leu  
           115                  120                  125  
 Lys Leu Ala Ser Tyr Asp Ser Val Ile Asn Ser Ile Phe Ile Tyr Phe  
           130                  135                  140  
 Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Ser Ser  
           145                  150                  155                  160  
 Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly  
                   165                  170                  175  
 Lys Tyr Lys Thr Phe Ser Thr Tyr Gly Ser His Leu Ala Phe Val Cys  
           180                  185                  190  
 Ser Phe Tyr Gly Thr Gly Ile Asp Met Tyr Leu Ala Ser Ala Met Ser  
           195                  200                  205  
 Pro Thr Pro Arg Asn Gly Val Val Val Ser Val Met Ala Val Val Thr



210	215	220
Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln		
225	230	235 240
Ser Ala Leu Arg Arg Leu Arg Ser Arg		
245		
<210> 70		
<211> 250		
<212> PRT		
<213> Homo sapiens		
<400> 70		
Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe		
1	5	10 15
Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser		
20	25	30
Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val		
35	40	45
Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp		
50	55	60
Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn		
65	70	75 80
Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu		
85	90	95
Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe		
100	105	110
Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu		
115	120	125
His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe		
130	135	140
Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser		
145	150	155 160
Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly		
165	170	175

Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys  
180 185 190

Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu  
195 200 205

Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val  
210 215 220

Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile  
225 230 235 240

Gln Ser Ala Leu Cys Arg Leu His Gly Arg  
245 250

<210> 71  
<211> 98  
<212> PRT  
<213> Homo sapiens

<400> 71  
Asn Leu Leu Ser Ile Pro Ala Val Ser Ser Asp Ser His Leu His Thr  
1 5 10 15

Pro Thr Tyr Phe Phe Leu Ser Ile Leu Cys Trp Ala Asp Ile Gly Phe  
20 25 30

Thr Ser Ala Thr Val Pro Lys Met Ile Val Asp Met Gln Trp Tyr Ser  
35 40 45

Arg Val Ile Ser His Ala Gly Cys Leu Thr Gln Met Ser Phe Leu Val  
50 55 60

Leu Phe Ala Cys Ile Glu Gly Met Leu Leu Thr Val Met Ala Tyr Asp  
65 70 75 80

Cys Phe Val Gly Ile Tyr Arg Pro Leu His Tyr Pro Val Ile Val Asn  
85 90 95

Pro His

<210> 72  
<211> 98  
<212> PRT  
<213> Homo sapiens

<400> 72

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr  
1 5 10 15

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val  
20 25 30

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu  
35 40 45

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val  
50 55 60

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp  
65 70 75 80

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser  
85 90 95

Ser Lys

<210> 73

<211> 305

<212> PRT

<213> Homo sapiens

<400> 73

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly  
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala  
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu  
35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser  
50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys  
65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly  
85 90 95

Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly  
 100 105 110  
 Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln  
 115 120 125  
 Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met  
 130 135 140  
 Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr  
 145 150 155 160  
 Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His  
 165 170 175  
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr  
 180 185 190  
 Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met  
 195 200 205  
 Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala  
 210 215 220  
 Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr  
 225 230 235 240  
 Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val  
 245 250 255  
 Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn  
 260 265 270  
 Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu  
 275 280 285  
 Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val  
 290 295 300  
 Leu  
 305

<210> 74

<211> 305

<212> PRT

<213> Homo sapiens

<400> 74

Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly  
1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu  
20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu  
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr  
50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln  
65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser  
85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe  
100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp  
115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu  
130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr  
145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His  
165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr  
180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met  
195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr  
210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr  
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile  
245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys  
260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met  
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu  
290 295 300

Leu  
305

<210> 75  
<211> 305  
<212> PRT  
<213> Homo sapiens

<400> 75  
Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly  
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala  
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu  
35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser  
50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys  
65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly  
85 90 95

Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly  
100 105 110

Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln  
115 120 125

Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met  
130 135 140

Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr

145		150		155		160
Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His						
	165		170		175	
Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr						
	180		185		190	
Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met						
	195		200		205	
Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala						
	210		215		220	
Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr						
	225		230		235	240
Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val						
	245		250		255	
Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn						
	260		265		270	
Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu						
	275		280		285	
Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val						
	290		295		300	

Leu  
305

<210> 76  
<211> 311  
<212> PRT  
<213> Homo sapiens

<400> 76  
Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly  
1 5 10 15  
Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu  
20 25 30  
Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu  
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr  
 50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln  
 65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser  
 85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe  
 100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp  
 115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu  
 130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr  
 145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His  
 165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr  
 180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met  
 195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr  
 210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr  
 225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile  
 245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys  
 260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met  
 275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu  
 290 295 300



Leu Trp Lys Phe Ser Gly Leu  
 305 310

<210> 77  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 77  
 Gly Asn Thr Val Leu Leu Phe Leu Ile Arg Val Asp Ser Arg Leu His  
 1 5 10 15

Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Phe Asp Ile Gly  
 20 25 30

Cys Pro Met Val Thr Ile Pro Lys Met Ala Ser Asp Phe Leu Arg Gly  
 35 40 45

Glu Gly Ala Thr Ser Tyr Gly Gly Gly Ala Ala Gln Ile Phe Phe Leu  
 50 55 60

Thr Leu Met Gly Val Ala Glu Gly Val Leu Leu Val Leu Met Ser Tyr  
 65 70 75 80

Asp Arg Tyr Val Ala Val Cys Gln Pro Leu Gln Tyr Pro Val Leu Met  
 85 90 95

Arg Arg Gln Val Cys Leu Leu Met Met Gly Ser Ser Trp Val Val Gly  
 100 105 110

Val Leu Asn Ala Ser Ile Gln Thr Ser Ile Thr Leu His Phe Pro Tyr  
 115 120 125

Cys Ala Ser Arg Ile Val Asp His Phe Phe Cys Glu Val Pro Ala Leu  
 130 135 140

Leu Lys Leu Ser Cys Ala Asp Thr Cys Ala Tyr Glu Met Ala Leu Ser  
 145 150 155 160

Thr Ser Gly Val Leu Ile Leu Met Leu Pro Leu Ser Leu Ile Ala Thr  
 165 170 175

Ser Tyr Gly His Val Leu Gln Ala Val Leu Ser Met Arg Ser Glu Glu  
 180 185 190

Ala

<210> 78  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 78  
 Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
     1                    5                    10                    15  
 Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
                     20                    25                    30  
 Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
             35                    40                    45  
 Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
     50                    55                    60  
 Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
     65                    70                    75                    80  
 Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
                     85                    90                    95  
 Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
             100                    105                    110  
 Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
     115                    120                    125  
 Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser  
     130                    135                    140  
 Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile  
     145                    150                    155                    160  
 Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn  
             165                    170

<210> 79  
 <211> 305  
 <212> PRT  
 <213> Homo sapiens

<400> 79

Met	Gly	Asp	Val	Asn	Gln	Ser	Val	Ala	Ser	Asp	Phe	Ile	Leu	Val	Gly	1	5	10	15
Leu	Phe	Ser	His	Ser	Gly	Ser	Arg	Gln	Leu	Leu	Phe	Ser	Leu	Val	Ala	20	25	30	
Val	Met	Phe	Val	Ile	Gly	Leu	Leu	Gly	Asn	Thr	Val	Leu	Leu	Phe	Leu	35	40	45	
Ile	Arg	Val	Asp	Ser	Arg	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Ser	50	55	60	
Gln	Leu	Ser	Leu	Phe	Asp	Ile	Gly	Cys	Pro	Met	Val	Thr	Ile	Pro	Lys	65	70	75	80
Met	Ala	Ser	Asp	Phe	Leu	Arg	Gly	Glu	Gly	Ala	Thr	Ser	Tyr	Gly	Gly	85	90	95	
Gly	Ala	Ala	Gln	Ile	Phe	Phe	Leu	Thr	Leu	Met	Gly	Val	Ala	Glu	Gly	100	105	110	
Val	Leu	Leu	Val	Leu	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Val	Cys	Gln	115	120	125	
Pro	Leu	Gln	Tyr	Pro	Val	Leu	Met	Arg	Arg	Gln	Val	Cys	Leu	Leu	Met	130	135	140	
Met	Gly	Ser	Ser	Trp	Val	Val	Gly	Val	Leu	Asn	Ala	Ser	Ile	Gln	Thr	145	150	155	160
Ser	Ile	Thr	Leu	His	Phe	Pro	Tyr	Cys	Ala	Ser	Arg	Ile	Val	Asp	His	165	170	175	
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr	180	185	190	
Cys	Ala	Tyr	Glu	Met	Ala	Leu	Ser	Thr	Ser	Gly	Val	Leu	Ile	Leu	Met	195	200	205	
Leu	Pro	Leu	Ser	Leu	Ile	Ala	Thr	Ser	Tyr	Gly	His	Val	Leu	Gln	Ala	210	215	220	
Val	Leu	Ser	Met	Arg	Ser	Glu	Glu	Ala	Arg	His	Lys	Ala	Val	Thr	Thr	225	230	235	240
Cys	Ser	Ser	His	Ile	Thr	Val	Val	Gly	Leu	Phe	Tyr	Gly	Ala	Ala	Val	245	250	255	

Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn  
260 265 270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu  
275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val  
290 295 300

Leu  
305

<210> 80  
<211> 305  
<212> PRT  
<213> Homo sapiens

<400> 80  
Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly  
1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu  
20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu  
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr  
50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln  
65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser  
85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe  
100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp  
115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu  
130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr  
145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His  
165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr  
180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met  
195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr  
210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr  
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile  
245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys  
260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met  
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu  
290 295 300

Leu  
305

<210> 81  
<211> 183  
<212> PRT  
<213> Homo sapiens

<400> 81  
Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val  
1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu  
20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr  
35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val

50		55		60
Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu				
65		70		75
				80
Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp				
	85		90	95
Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Leu Pro				
	100		105	110
Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile				
	115		120	125
Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn				
	130		135	140
Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr				
145		150		155
				160
Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln				
	165		170	175
Ser Arg Glu Val Gln Arg Lys				
	180			

<210> 82  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 82
Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala
1 5 10 15
Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu
20 25 30
Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val
35 40 45
Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala
50 55 60
Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn
65 70 75 80

Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val  
                             85                            90                            95  
 Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn  
                             100                            105                            110  
 Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val  
                             115                            120                            125  
 Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu  
                             130                            135                            140  
 Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val  
                             145                            150                            155                            160  
 Asn Thr Lys Arg

<210> 83  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 83  
 Gly Asn Thr Val Leu Leu Phe Leu Ile Arg Val Asp Ser Arg Leu His  
           1                            5                            10                            15  
 Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Phe Asp Ile Gly  
                             20                            25                            30  
 Cys Pro Met Val Thr Ile Pro Lys Met Ala Ser Asp Phe Leu Arg Gly  
                             35                            40                            45  
 Glu Gly Ala Thr Ser Tyr Gly Gly Gly Ala Ala Gln Ile Phe Phe Leu  
                             50                            55                            60  
 Thr Leu Met Gly Val Ala Glu Gly Val Leu Leu Val Leu Met Ser Tyr  
                             65                            70                            75                            80  
 Asp Arg Tyr Val Ala Val Cys Gln Pro Leu Gln Tyr Pro Val Leu Met  
                             85                            90                            95  
 Arg Arg Gln Val Cys Leu Leu Met Met Gly Ser Ser Trp Val Val Gly  
                             100                            105                            110  
 Val Leu Asn Ala Ser Ile Gln Thr Ser Ile Thr Leu His Phe Pro Tyr  
                             115                            120                            125

Cys Ala Ser Arg Ile Val Asp His Phe Phe Cys Glu Val Pro Ala Leu  
 130 135 140

Leu Lys Leu Ser Cys Ala Asp Thr Cys Ala Tyr Glu Met Ala Leu Ser  
 145 150 155 160

Thr Ser Gly Val Leu Ile Leu Met Leu Pro Leu Ser Leu Ile Ala Thr  
 165 170 175

Ser Tyr Gly His Val Leu Gln Ala Val Leu Ser Met Arg Ser Glu Glu  
 180 185 190

Ala

<210> 84

<211> 174

<212> PRT

<213> Homo sapiens

<400> 84

Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
 1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
 20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
 35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
 50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
 65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
 85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
 100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
 115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser



130	135	140
Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile		
145	150	155 160
Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn		
165	170	
<210> 85		
<211> 305		
<212> PRT		
<213> Homo sapiens		
<400> 85		
Met Asn Pro Ala Asn His Ser Gln Val Ala Gly Phe Val Leu Leu Gly		
1	5	10 15
Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser		
20	25	30
Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile		
35	40	45
Val Thr Ser Asp Pro His Leu His Thr Thr Met Tyr Phe Leu Leu Gly		
50	55	60
Asn Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Ile Thr Ala Pro Arg		
65	70	75 80
Met Leu Val Asp Leu Leu Ser Gly Asn Pro Thr Ile Ser Phe Gly Gly		
85	90	95
Cys Leu Thr Gln Leu Phe Phe Phe His Phe Ile Gly Gly Ile Lys Ile		
100	105	110
Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln		
115	120	125
Pro Leu His Tyr Thr Leu Ile Met Asn Gln Thr Val Cys Ala Leu Leu		
130	135	140
Met Ala Ala Ser Trp Val Gly Gly Phe Ile His Ser Ile Val Gln Ile		
145	150	155 160
Ala Leu Thr Ile Gln Leu Pro Phe Cys Gly Pro Asp Lys Leu Asp Asn		
165	170	175

Phe Tyr Cys Asp Val Pro Gln Leu Ile Lys Leu Ala Cys Thr Asp Thr  
 180 185 190

Phe Val Leu Glu Leu Leu Met Val Ser Asn Asn Gly Leu Val Thr Leu  
 195 200 205

Met Cys Phe Leu Val Leu Leu Gly Ser Tyr Thr Ala Leu Leu Val Met  
 210 215 220

Leu Arg Ser His Ser Arg Glu Gly Arg Ser Lys Ala Leu Ser Thr Cys  
 225 230 235 240

Ala Ser His Ile Ala Val Val Thr Leu Ile Phe Val Pro Cys Ile Tyr  
 245 250 255

Val Tyr Thr Arg Pro Phe Arg Thr Phe Pro Met Asp Lys Ala Val Ser  
 260 265 270

Val Leu Tyr Thr Ile Val Thr Pro Met Leu Asn Pro Ala Ile Tyr Thr  
 275 280 285

Leu Arg Asn Lys Glu Val Ile Met Ala Met Lys Lys Leu Trp Arg Arg  
 290 295 300

Lys  
 305

<210> 86  
 <211> 305  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
 Met Gly Ala Leu Asn Gln Thr Arg Val Thr Glu Phe Ile Phe Leu Gly  
 1 5 10 15

Leu Thr Asp Asn Trp Val Leu Glu Ile Leu Phe Phe Val Pro Phe Thr  
 20 25 30

Val Thr Tyr Met Leu Thr Leu Leu Gly Asn Phe Leu Ile Val Val Thr  
 35 40 45

Ile Val Phe Thr Pro Arg Leu His Asn Pro Met Tyr Phe Phe Leu Ser  
 50 55 60

Asn Leu Ser Phe Ile Asp Ile Cys His Ser Ser Val Thr Val Pro Lys  
 65 70 75 80

Met Leu Glu Gly Leu Leu Leu Glu Arg Lys Thr Ile Ser Phe Asp Asn  
                                     85                                    90                                    95

Cys Ile Ala Gln Leu Phe Phe Leu His Leu Phe Ala Cys Ser Glu Ile  
                                     100                                    105                                    110

Phe Leu Leu Thr Ile Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ile  
                                     115                                    120                                    125

Pro Leu His Tyr Ser Asn Val Met Asn Met Lys Val Cys Val Gln Leu  
                                     130                                    135                                    140

Val Phe Ala Leu Trp Leu Gly Gly Thr Ile His Ser Leu Val Gln Thr  
 145                                    150                                    155                                    160

Phe Leu Thr Ile Arg Leu Pro Tyr Cys Gly Pro Asn Ile Ile Asp Ser  
                                     165                                    170                                    175

Tyr Phe Cys Asp Val Pro Pro Val Ile Lys Leu Ala Cys Thr Asp Thr  
                                     180                                    185                                    190

Tyr Leu Thr Gly Ile Leu Ile Val Ser Asn Ser Gly Thr Ile Ser Leu  
                                     195                                    200                                    205

Val Cys Phe Leu Ala Leu Val Thr Ser Tyr Thr Val Ile Leu Phe Ser  
                                     210                                    215                                    220

Leu Arg Lys Lys Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys  
 225                                    230                                    235                                    240

Ser Ala His Phe Met Val Val Thr Leu Phe Phe Gly Pro Cys Ile Phe  
                                     245                                    250                                    255

Leu Tyr Thr Arg Pro Asp Ser Ser Phe Ser Ile Asp Lys Val Val Ser  
                                     260                                    265                                    270

Val Phe Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu Ile Tyr Thr  
                                     275                                    280                                    285

Leu Arg Asn Glu Glu Val Lys Thr Ala Met Lys His Leu Arg Gln Arg  
                                     290                                    295                                    300

Arg  
 305

<210> 87

<211> 196

<212> PRT

<213> Homo sapiens

<400> 87

Gly Asn Leu Leu Ile Val Val Ile Val Thr Ser Asp Pro His Leu His  
1 5 10 15

Thr Thr Met Tyr Phe Leu Leu Gly Asn Leu Ser Phe Leu Asp Phe Cys  
20 25 30

Tyr Ser Ser Ile Thr Ala Pro Arg Met Leu Val Asp Leu Leu Ser Gly  
35 40 45

Asn Pro Thr Ile Ser Phe Gly Gly Cys Leu Thr Gln Leu Phe Phe Phe  
50 55 60

His Phe Ile Gly Gly Ile Lys Ile Phe Leu Leu Thr Val Met Ala Tyr  
65 70 75 80

Asp Arg Tyr Ile Ala Ile Ser Gln Pro Leu His Tyr Thr Leu Ile Met  
85 90 95

Asn Gln Thr Val Cys Ala Leu Leu Met Ala Ala Ser Trp Val Gly Gly  
100 105 110

Phe Ile His Ser Ile Val Gln Ile Ala Leu Thr Ile Gln Leu Pro Phe  
115 120 125

Cys Gly Pro Asp Lys Leu Asp Asn Phe Tyr Cys Asp Val Pro Gln Leu  
130 135 140

Ile Lys Leu Ala Cys Thr Asp Thr Phe Val Leu Glu Leu Leu Met Val  
145 150 155 160

Ser Asn Asn Gly Leu Val Thr Leu Met Cys Phe Leu Val Leu Leu Gly  
165 170 175

Ser Tyr Thr Ala Leu Leu Val Met Leu Arg Ser His Ser Arg Glu Gly  
180 185 190

Arg Ser Lys Ala  
195

<210> 88

<211> 177

<212> PRT

<213> Homo sapiens

<400> 88

Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln  
1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu  
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly  
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp  
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile  
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr  
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu  
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp  
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser  
130 135 140

Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile  
145 150 155 160

Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys  
165 170 175

Arg

<210> 89

<211> 310

<212> PRT

<213> Homo sapiens

<400> 89

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe  
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu  
                   20                                  25                                  30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile  
                   35                                  40                                  45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His  
                   50                                  55                                  60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met  
                   65                                  70                                  75                                  80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg  
                                   85                                  90                                  95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu  
                                   100                                  105                                  110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro  
                   115                                  120                                  125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala  
                   130                                  135                                  140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val  
                   145                                  150                                  155                                  160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe  
                                   165                                  170                                  175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His  
                                   180                                  185                                  190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly  
                   195                                  200                                  205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile  
                   210                                  215                                  220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys  
                   225                                  230                                  235                                  240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile  
                                   245                                  250                                  255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr  
                   260                                  265                                  270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile  
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu  
 290 295 300

Gly Val Glu Arg Ala Leu  
 305 310

<210> 90

<211> 183

<212> PRT

<213> Homo sapiens

<400> 90

Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val  
 1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu  
 20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr  
 35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val  
 50 55 60

Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu  
 65 70 75 80

Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp  
 85 90 95

Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Leu Pro  
 100 105 110

Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile  
 115 120 125

Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn  
 130 135 140

Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr  
 145 150 155 160

Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln

165                      170                      175  
 Ser Arg Glu Val Gln Arg Lys  
 180  
  
 <210> 91  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 91  
 Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala  
 1                      5                      10                      15  
 Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu  
 20                      25                      30  
 Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val  
 35                      40                      45  
 Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala  
 50                      55                      60  
 Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn  
 65                      70                      75                      80  
 Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val  
 85                      90                      95  
 Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn  
 100                      105                      110  
 Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val  
 115                      120                      125  
 Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu  
 130                      135                      140  
 Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val  
 145                      150                      155                      160  
 Asn Thr Lys Arg

<210> 92  
 <211> 263



<212> PRT

<213> Homo sapiens

<400> 92

Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe Thr  
1 5 10 15

Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser Arg  
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu  
35 40 45

Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp Arg  
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn Pro  
65 70 75 80

Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu Leu  
85 90 95

Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe Lys  
100 105 110

Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu His  
115 120 125

Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe Met  
130 135 140

Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser Tyr  
145 150 155 160

Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly Lys  
165 170 175

Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys Leu  
180 185 190

Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu Pro  
195 200 205

Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val Thr  
210 215 220

Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile Gln  
225 230 235 240

Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His Leu  
245 250 255

His Pro Phe Cys Tyr Met Gly  
260

<210> 93

<211> 173

<212> PRT

<213> Homo sapiens

<400> 93

Met Tyr Phe Phe Leu Ser Asn Leu Cys Trp Ala Asp Ile Gly Phe Thr  
1 5 10 15

Leu Ala Thr Val Pro Lys Met Ile Val Asp Met Gly Ser His Ser Arg  
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu  
35 40 45

Phe Ala Cys Ile Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp Gln  
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Pro Val Ile Met Asn Pro  
65 70 75 80

His Leu Cys Val Phe Leu Val Leu Val Ser Phe Phe Leu Ser Leu Leu  
85 90 95

Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Phe Phe Lys  
100 105 110

Asn Val Glu Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu Asn  
115 120 125

Leu Ala Cys Ser Asp Gly Ile Ile Asn Ser Ile Phe Ile Tyr Leu Asp  
130 135 140

Ser Ile Leu Phe Ser Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser Tyr  
145 150 155 160

Tyr Lys Ile Val Pro Ser Ile Leu Arg Ile Ser Ser Ser  
165 170

<210> 94  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 94  
 Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val Ala  
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 Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu Trp  
 20 25 30  
 Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val Met  
 35 40 45  
 Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp Arg  
 50 55 60  
 Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser Ser  
 65 70 75 80  
 Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser Phe  
 85 90 95  
 Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln Asn  
 100 105 110  
 Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile Val  
 115 120 125  
 Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys Ile  
 130 135 140  
 Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg  
 145 150

<210> 95  
 <211> 320  
 <212> PRT  
 <213> Homo sapiens

<400> 95  
 Met Leu Leu Cys Phe Arg Phe Gly Asn Gln Ser Met Lys Arg Glu Asn  
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 Phe Thr Leu Ile Thr Asp Phe Val Phe Gln Gly Phe Ser Ser Phe His  
 20 25 30

Glu Gln Gln Ile Thr Leu Phe Gly Val Phe Leu Ala Leu Tyr Ile Leu  
 35 40 45  
 Thr Leu Ala Gly Asn Ile Ile Ile Val Thr Ile Ile Arg Ile Asp Leu  
 50 55 60  
 His Leu His Thr Pro Met Tyr Phe Phe Leu Ser Met Leu Ser Thr Ser  
 65 70 75 80  
 Glu Thr Val Tyr Thr Leu Val Ile Leu Pro Arg Met Leu Ser Ser Leu  
 85 90 95  
 Val Gly Met Ser Gln Pro Met Ser Leu Ala Gly Cys Ala Thr Gln Met  
 100 105 110  
 Phe Phe Phe Val Thr Phe Gly Ile Thr Asn Cys Phe Leu Leu Thr Ala  
 115 120 125  
 Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro Leu Arg Tyr Met  
 130 135 140  
 Val Ile Met Asn Lys Arg Leu Arg Ile Gln Leu Val Leu Gly Ala Cys  
 145 150 155 160  
 Ser Ile Gly Leu Ile Val Ala Ile Thr Gln Val Thr Ser Val Phe Arg  
 165 170 175  
 Leu Pro Phe Cys Ala Arg Lys Val Pro His Phe Phe Cys Asp Ile Arg  
 180 185 190  
 Pro Val Met Lys Leu Ser Cys Ile Asp Thr Thr Val Asn Glu Ile Leu  
 195 200 205  
 Thr Leu Ile Ile Ser Val Leu Val Leu Val Val Pro Met Gly Leu Val  
 210 215 220  
 Phe Ile Ser Tyr Val Leu Ile Ile Ser Thr Ile Leu Lys Ile Ala Ser  
 225 230 235 240  
 Val Glu Gly Arg Lys Lys Ala Phe Ala Thr Cys Ala Ser His Leu Thr  
 245 250 255  
 Val Val Ile Val His Tyr Ser Cys Ala Ser Ile Ala Tyr Leu Lys Pro  
 260 265 270  
 Lys Ser Glu Asn Thr Arg Glu His Asp Gln Leu Ile Ser Val Thr Tyr  
 275 280 285

Thr Val Ile Thr Pro Leu Leu Asn Pro Val Val Tyr Thr Leu Arg Asn  
 290 295 300

Lys Glu Val Lys Asp Ala Leu Cys Arg Ala Val Gly Gly Lys Phe Ser  
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 primer

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<210> 97

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<212> DNA

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<400> 97

ttggctttgc ttgcaccaac tgcc 24

<210> 98

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 primer

<400> 98

cgatcatatc ccatcacagc aa 22

<210> 99  
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primer

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19

<210> 103

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<212> DNA

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<223> Description of Artificial Sequence:oligonucleotide  
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<400> 103

tcctcttgtc tacagtctga ggaacaa

27

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:oligonucleotide  
primer

<400> 104

ccaagaactc ttttcaatgc a

21